

IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A navy vessel type equipment system for electrically propelled navy vessels of various sizes and propulsion power, in which the navy vessels, ~~for example frigates, corvettes, high speed patrol boats, unmanned attack boats or supply vessels (equipment system vessels)~~ have include standard equipment segments for propulsion and vessel operation and wherein the individual navy vessel types have vessel hulls which are designed on a type-dependent basis, the system comprising:

~~_____ , that is to say on a size and task specific basis, while the equipment segments for propulsion, such as electrical steering propellers and waterjets and vessel operation, including power generation, power distribution and automation are designed independently of the type and can be combined combinable depending on the propulsion power and object of the individual navy vessels, wherein the equipment segments are designed such that they can be installed to be installable in a prefabricated manner at different locations in the vessel hull.~~

2. (Currently Amended) The navy vessel type equipment system as claimed in claim 1, wherein, ~~characterized in that in comparison to their power, the equipment segments comprise include~~ small and light propulsion equipment segments which have electric motors using high-temperature superconducting (HTS) technology, ~~in particular motors which have rotor windings that are cooled directly or indirectly by liquid neon or liquid nitrogen.~~

3. (Currently Amended) The navy vessel type equipment system as claimed in claim 1 ~~or 2~~, wherein, ~~characterized in that~~ in comparison to their power, the equipment segments have small and light power generation units which are designed as internal combustion engine generator sets on standard foundations.

4. (Currently Amended) The navy vessel type equipment system as claimed in claim 3, ~~characterized in that wherein~~ the internal combustion engine generator sets are provided with generators using HTS technology, which, ~~in particular~~, have windings which are cooled directly or indirectly with liquid neon or liquid nitrogen.

5. (Currently Amended) The navy vessel type equipment system as claimed in claim 2, ~~3 or 4~~, ~~characterized in that~~, wherein the motors and generators are designed to be shock-resistant with outer and inner shock damping.

6. (Currently Amended) The navy vessel type equipment system as claimed in claim 5, wherein ~~characterized in that~~ the motors and generators are installed elastically, ~~in particular~~ on standard foundations and in addition have a stator/rotor system which is elastically connected to the machine housing and ~~can move~~ are movable independently of the housing, ~~that is to say forms a unit which can move independently in the housing and has its own shock damping elements.~~

7. (Currently Amended) The navy vessel type equipment system as claimed in claim 1, ~~2, 3, 4, 5 or 6~~ ~~characterized in that~~, wherein the stators of the motors and generators have air-gap windings.

8. (Currently Amended) The navy vessel type equipment system as claimed in ~~one of more of the preceding claims~~,

~~characterized in that~~claim 1, wherein the vessel hulls have a pipeline system for liquid nitrogen or for liquid neon, to which HTS components ~~can be connected~~are connectable, ~~such as motors, generators and possibly current limiters, in particular via quick-release couplings.~~

9. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of the preceding claims,~~
~~characterized in that~~claim 1, wherein at least one air decomposition unit for the production of liquid nitrogen is arranged in the vessel hull and is connected via pipelines to the individual HTS components in the vessel hull.

10. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of the preceding claims,~~
~~characterized in that~~claim 1, wherein the individual equipment system type vessels have electrical power generation units which operate with low emissions and ~~can be installed~~are installable in a decentralized manner.

11. (Currently Amended) The navy vessel type equipment system as claimed in claim 10, wherein
~~characterized in that~~ the individual equipment system vessels have internal combustion engines whose exhaust gas is introduced into the water surrounding the vessel hulls.

12. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the type vessels have power supply units which operate without any emissions, ~~in particular~~ in the form of air-breathing fuel cells, which ~~preferably~~ feed their power to a DC network.

13. (Currently Amended) The navy vessel type equipment system as claimed in claim 12, wherein
~~characterized in that~~ the fuel cells are in the form of PEM fuel cells.

14. (Currently Amended) The navy vessel type equipment system as claimed in claim 12, wherein ~~characterized in that~~ the fuel cells are in the form of methanol direct fuel cells (MDFC) or molten carbonate fuel cells (MCFC).

15. (Currently Amended) The navy vessel type equipment system as claimed in claim 12, wherein ~~13 or 14,~~ ~~characterized in that~~ the PEM and the MDFC or MCFC fuel cells, ~~possibly as well as other fuel cells with a higher operating temperature than the PEM fuel cells,~~ form a power and heat system in which they produce power as required, corresponding to their different dynamics.

16. (Currently Amended) The navy vessel type equipment system as claimed in claim 12, ~~13 or 15,~~ ~~characterized in that~~ wherein the fuel cells are supplied from hydrogen reservoirs which are filled by diesel reformers.

17. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of claims 12 to 16,~~ ~~characterized in that,~~ wherein the exhaust gases which are produced by the operation of at least one of the MLFC ~~or~~, MDFC and ~~or~~ the diesel reformers are mixed with the water surrounding the vessel hulls.

18. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein the equipment system vessels are designed without rudder blades.

19. (Currently Amended) The navy vessel type equipment system as claimed in claim 18, ~~characterized in that~~ wherein the equipment system vessels have at least one of steering propellers and ~~or~~ lateral thrusters.

20. (Currently Amended) The navy vessel type equipment system as claimed in claim 18-~~or 19~~,
~~characterized in that,~~ wherein the equipment system vessels have waterjets which ~~can be controlled~~are controllable independently of one another,~~in particular waterjets arranged in pairs, which can change the heading of the vessels.~~

21. (Currently Amended) The navy vessel type equipment system as claimed in ~~one of more of the preceding claims,~~
~~characterized in that~~claim 1, wherein the equipment system vessels have AC and DC network elements for connection of the individual power generation and load units.

22. (Currently Amended) The navy vessel type equipment system as claimed in claim 21, wherein
~~characterized in that~~ converters which connect the network elements to one another are arranged between the network elements.

23. (Currently Amended) The navy vessel type equipment system as claimed in claim 21-~~or 22~~,
~~characterized in that~~ wherein the electrical network system is designed such that it has at least one of DC network elements with different voltages and/~~or~~ AC network elements with different frequencies and voltages.

24. (Currently Amended) The navy vessel type equipment system as claimed in claim 21-~~or 22~~,
~~characterized in that,~~ wherein a DC network which is equipped with an HTS current limiter is provided between the fuel cells and the electrical steering propellers.

25. (Currently Amended) The navy vessel type equipment system as claimed in claim 21, 22, 23-~~or 24~~,
~~characterized in that~~wherein the on-board network is subdivided into network elements which are connected to one another and whose connections have at least one of HTS current limiters and/~~or~~ high-speed semiconductor switches.

26. (Currently Amended) The navy vessel type equipment system as claimed in claim 25, wherein
~~characterized in that~~ high-speed semiconductor switches are arranged in the on-board network, by ~~means of which~~ individual network elements or individual equipment segments ~~can be~~ are quickly ~~switched~~ switchable in the event of a hit on the supply network to a supply by parts of the supply network which are not affected by the hit, such that no electrical damage occurs to the components or equipment segments.

27. (Currently Amended) The navy vessel type equipment system as claimed in claim 21, ~~22, 23, 24, 25 or 26,~~
~~characterized in that~~ wherein a higher-frequency network element, ~~for example a network element at up to 400 Hz,~~ is arranged between the generator, which in particular is driven by a gas turbine, for the waterjets.

28. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the equipment system type vessels have an automation system which has an automation control center which is connected to the individual vessel areas via a bus system ~~which, in particular, is a redundant bus system, in particular via glass fiber buses.~~

29. (Currently Amended) The navy vessel type equipment system as claimed in claim 28, wherein
~~characterized in that~~ the bus system accesses a segmented network wherein the bus ~~preferably~~ has a redundant design and connects the segmented network in the individual vessel protection areas to the automation control center.

30. (Currently Amended) The navy vessel type equipment system as claimed in claim 28 ~~or 29,~~
~~characterized in that~~ wherein the automation control center automatically makes system-controlled decisions when urgent measures for vessel protection require this.

31. (Currently Amended) The navy vessel type equipment system as claimed in claim 28, ~~29 or 30,~~
~~characterized in that~~wherein the automation control center has an expert system which is in the form of a higher level for automation and which allows all the measured values to be indicated, and allows the system statistics and the circuit constellations to be displayed in a comprehensive, clear form with decision proposals.

32. (Currently Amended) The navy vessel type equipment system as claimed in claim 29, ~~30 and 31,~~
~~characterized in that,~~ wherein the equipment system vessels have a life cycle management system and a status monitoring system for controlling the logistics for the equipment system vessels.

33. (Currently Amended) The navy vessel type equipment system as claimed in ~~one or more of claims 28 to 32,~~
~~characterized in that,~~ wherein the navy vessel type equipment system has a battle damage control system which is incorporated in the automation systems and allows all of the internal areas and their states to be displayed on at least one monitor.

34. (Currently Amended) A vessel type equipment system for electrically propelled vessels of various sizes and propulsion power, comprising:
~~characterized in that the equipment segments for propulsion and vessel operation and the components connected to them are designed in particular as claimed in one or more of claims 1 to 32 such that they can be used for merchant navy vessels, for coastal defense boats, for customs boats etc. and for sea-going yachts.~~

REMARKS

Claims 1-34 are now present in this application. It should be noted that the amendments to original claims 1-34 of the present application are non-narrowing amendments, made solely to place the claims in proper form for U.S. practice and not to overcome any prior art or for any other statutory considerations. For example, amendments have been made to broaden the claims; remove reference numerals in the claims; remove/change any phrases unique to European practice; remove multiple dependencies in the claims; and to place claims in a more recognizable U.S. form, including the use of the transitional phrase "comprising" as well as the phrase "wherein". Other such non-narrowing amendments include placing apparatus-type claims (setting forth elements in separate paragraphs) in a more recognizable U.S. form. Again, all amendments are non-narrowing and have been made solely to place the claims in proper form for U.S. practice and not to overcome any prior art or for any other statutory considerations.

CONCLUSION

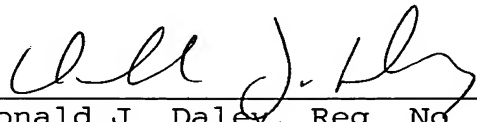
Accordingly, in view of the above amendments and remarks, an early indication of the allowability of each of claims 1-34 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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